

ABSTRACT OF THE DISCLOSURE

A storage virtualization environment is provided that includes a network switch system for initializing a virtual volume in a system including a host system, and storage devices. The network switch system includes storage processors including first and second tier storage processors and a Virtualization Coherency Manager (VCM) for receiving storage connectivity identifying which storage processors are connected to selected ones of the storage devices. Further, the network switch system includes a master storage processor for creating a logical tree based on the storage connectivity information, the logical tree reflecting a virtual volume of data distributed across the storage devices and includes (i) first tier objects representing partitions of the virtual volume data and (ii) second tier objects representing a logical configuration of the virtual volume. In one embodiment, the VCM assigns the first tier objects to selective ones of the first tier storage processors and assigns the second tier objects to selective ones of the second tier storage processors based on the logical tree. Further, each of the selective first and second tier storage processors initialize a local portion of the virtual volume to allow the host system to access the virtual volume through the network switch system.